

Crews recycling on I-15 project

Genelle Pugmire - Daily Herald | Posted: Monday, August 2, 2010 12:20 am |

The machinery used as part of the Interstate 15 CORE project's recycling sounds more like children's playthings, with names like the muncher, the cruncher and the claw.

With 63 bridges between Lehi and Spanish Fork being reconstructed in some fashion, the replacement often requires an embankment to build up the bridge, ramp or piece of the road, according to UDOT spokesman Scott Thompson.

"The embankments require a lot of dirt and other fill to build up the road or ramp to the grade needed," he said. "The total fill that needs to be hauled onto the project is 7.5 million tons -- the same weight as 75 cruise ships; 75,000 tons of the total will come from reused concrete from the old bridges."

Thompson said that as they demolish the bridges they take the debris and stockpile it near the demolition site. Steel girders have to be cut to safe lengths for recycling. To do that they use hydraulic jackhammers and cut the girders into two foot wide pieces to fit in the portable crusher.

The munchers, which are sharp and look like a big claw, then crunch the concrete up. "They cut through concrete pretty easily," Thompson said. "The crusher is also equipped with a magnet that removes any rebar from the debris during the crushing process. The remaining rebar generated during the crushing process is also placed in the recycle containers."

According to Thompson, any steel that is generated from the removal of the bridges is processed on site, placed in containers and hauled to a steel recycling facility. The steel includes other structural steel girders and reinforcing steel.

"The monetary savings involved with this recycling project is hard to quantify at this point," Thompson said. That savings would include the cost of hauling it away and the cost of new concrete. Thompson also points out the positives of reusing the concrete.

"Besides being environmentally friendly, much of the reused concrete is used as fill in embankments at the same location so it doesn't have to be hauled away, saving time to meet the aggressive project timeline of completion by December 2012," he said. "The original investment made in that concrete is preserved by finding a way to reuse the old material in a way on I-15 CORE."

It is also efficient and economical to reuse the existing material to fill a need on the project, Thompson added.

To help visualize just how much concrete pavement will be used in the 24-mile project, Thompson said the project is 2.7 million square yards, or 509 football fields.

Not only will the concrete be used for the road, but for some of the decorative areas around the bridges. According to Thompson, each city along the corridor has been given the opportunity to choose the way they will decorate those bridges attached their city. Some have special designs and other have opted for the more natural or generic rock designs.

Much of that work is not even on the agenda at this time, but further down the construction road. For now Thompson said they are focusing on what will happen in the

next few weeks and months. Here are some things UDOT will be doing in the month of August: more bridge demolitions, traffic lane shifts, back to school outreach information for college and high school students, cross street closures and Labor Day weekend outlook.

This week in construction:

Lehi-Lindon Area

Upcoming Construction Activities

- West Frontage Road in American Fork: By the first week in August, construction crews plan to start bridge and road work where the American Fork River crosses under West Frontage Road. West Frontage Road between Storrs Avenue and 100 East in American Fork is expected to be closed for approximately two months. Motorists can use 400 South as an alternate route. Utility crews are finishing the installation of the gas line in this area.

Ongoing Construction Activities

- Mill Pond and Mitchell's Hollow: Crews continue working on the culvert expansion at Mill Pond and Mitchell's Hollow, north of American Fork Main Street. Nearby residents and businesses should expect noise and other inconveniences associated with the construction. Please use caution as large trucks and heavy construction equipment are working nearby.
- 500 East, Sam White Lane, and Proctor Lane bridges in Pleasant Grove/American Fork: Construction of the bridges continues. Center columns at 500 East and Sam White Lane are in place. Nearby residents and businesses should expect noise and other inconveniences associated with the construction. Please use caution as large trucks and heavy construction equipment are working nearby.
- I-15 from 100 East in American Fork to 200 South in Lindon: Crews are widening the shoulders along I-15 in both directions. Motorists can expect slight lane shifts, narrowed lanes and reduced speeds throughout the area.
- 400 North to Proctor Lane in Lindon: The road connecting 400 North to Proctor Lane remains closed for utility work and bridge construction and will be closed until summer 2011. Motorists can use Pleasant Grove Boulevard and 700 North in Lindon to access Proctor Lane.

Orem Area

Upcoming Construction Activities

- 400 and 800 North bridges: At the 800 North interchange and the 400 North bridge there will be increased activity as crews prepare to place temporary shoring at these locations. Once completed, crews will install specialized drains to help the ground settle and consolidate at a faster rate. These "wick" drains will be placed for the new alignment of the 800 North southbound on-ramp.
- 2000 South in Orem/2000 North in Provo: On July 29, 2000 South in Orem was closed from 9 p.m. to 5:30 a.m. so crews could remove the outside edges of the

bridge. Following this work, crews will set new girders which will require a one-way traffic operation on 2000 South under I-15. The one-way traffic configuration will remain in place for two weeks.

- 2000 South in Orem/2000 North and 820 North in Provo: Beginning July 26 through mid-August, flaggers will be posted under I-15 at 820 North in Provo and at 2000 North in Provo (2000 South Orem) to control traffic while crews install the bridge decks. Motorists should expect one-way traffic or intermittent closures at these locations and possible delays of up to 15 minutes. These short-term delays or closures are in place for motorist safety while work occurs overhead. Please pay attention and follow flagger instructions or use alternate routes when possible.

Ongoing Construction Activities

- I-15 from 200 South in Lindon through Orem: I-15 will continue to be reduced to two lanes in each direction at night to accommodate work activities for the widening of I-15. Specific activities include
- Orem Center Street: Hauling operations are underway. Eastbound motorists should anticipate nightly lane restrictions.
- Bridge locations at 1600 North, 400 North and 400 South in Orem and at Geneva Road in Lindon: Crews are constructing new bridge segments. Motorists traveling the cross streets should expect nightly lane restrictions and traffic shifts.
- Orem Center Street, 800 North, 2000 South: Crews are placing temporary retaining walls at the bridges. Travel on these streets may be restricted to one lane in each direction at night.

Provo-Spanish Fork Area

Upcoming Construction Activities

- Provo River Parkway Trail: July 26 through late summer 2012, the trail will be closed at I-15 while crews expand I-15 and rebuild the freeway bridges over the trail. Bridge work is expected to begin in late July or early August. This will include pile driving, hauling, compacting and wall construction. Trails users should also be aware that crews will be paving on the shoulders on 820 North at all hours and striping new lane lines and shoulders along Independence Avenue and 620 North during the day. The trail closure is in place for user safety. I-15 CORE and Provo City have developed an improved, well-marked alternate route for trail users during I-15 construction. [Click here to see the alternate routes.](#) Once work is complete, users will have improved height clearance and a lighted 10-foot-wide trail undercrossing.
- I-15 in Springville, Spanish Fork: July 27, all traffic between State Route 75 and state Route 77 is planned to be shifted onto the east side of I-15 as crews begin rebuilding I-15 southbound in this area. Three lanes of traffic will be maintained in each direction during peak travel times. Crews are scheduled to shift the remaining segment of I-15 from Williams Lane south to Spanish Fork Main Street in early August. Motorists should be prepared for a new traffic configuration. Travel lanes will be narrowed and speed limits will be reduced in this area.

- 2000 West in Springville (Frontage Road): July 29 through November, 2000 West (the frontage road) will be closed at three locations for culvert installation. The first closure will take place at the Hobble Creek crossing and will last approximately three months. Motorists can use I-15 to the state Route 77 interchange and access 2000 West from there. Closures at the Packard Drain and Dry Creek will begin in early August. Detour Map

Ongoing Construction Activities

- Northbound I-15 between 2000 North and S.R. 75: Nighttime hauling, embankment, retaining wall installation and other work continues along the northbound shoulder through August. Local residents should expect some vibration and noise associated with trucks and other heavy equipment working nearby. Expect some lane restrictions with this activity.
- Provo Center Street: Construction activities in the Center Street area have been phased to maintain ramp access from I-15 to Center Street. Crews have closed the southbound ramp from I-15 to East Center Street, and all traffic exiting I-15 southbound is diverted to the intersection of Center Street and I-15 southbound (next to the Center Street underpass).
- Work will now begin to create a similar configuration with the northbound ramps. Crews are building new temporary northbound on- and off-ramps and will install an additional signal to control access on the east side of I-15. This work is underway with changes anticipated for traffic movement in late July or early August. Once these ramps are in place, widening of the I-15 mainline can begin.
- Traffic between University Parkway in Orem and the Provo River is expected to be shifted onto the newly widened westbound side in mid September. Three lanes of traffic will be maintained in each direction. Motorists should expect some congestion and travel delays at the interchange as construction progresses and use alternate routes when possible. Work impacting traffic will be scheduled during off-peak times. More information will be provided here as schedules are confirmed.
- Southbound I-15 at the RR, 820 North and 2000 North in Provo: Construction continues for the temporary bridges. The majority of this work is occurring during the day. Motorists can expect flaggers and equipment working throughout the area.
- Northbound I-15 between 600 South and 920 South in Provo: Construction of temporary bridges is underway. Crews are working from 7 a.m. to 5:30 p.m. six days a week. Pedestrian access may be limited near and under the bridges for safety as work proceeds. Intermittent flagging operations may also occur. Area residents should expect vibration and additional construction noise.
- I-15 between S.R. 75 and Spanish Fork Main Street: Crews are working within the median of I-15 between 2700 North in Spanish Fork and 400 South in Springville. Also, during nighttime hours, crews continue hauling materials, paving and striping the median and removing asphalt from the old I-15 inside the work zone between 2700 North and S.R. 75, where traffic has been shifted. Expect lane restrictions and slight travel delays on I-15. Please be aware that

trucks may be entering and exiting the work zone in this area. Please obey traffic laws and do not follow trucks too closely.

- 2700 North in Spanish Fork: The bridge over I-15 is closed for reconstruction. Ongoing work including excavation and abutment removal is underway. Pile driving is also underway. Work will continue through the end of 2012. Motorists should use 2550 West (Spanish Fork Main Street) or state Route 51 to access 400 South in Springville.
- I-15 ramp to U.S. Highway 6 ramps: Drainage installation and subgrade work continues along the northbound shoulder of I-15 and the off-ramp to U.S. 6. Crews will be working in this area 24 hours a day, six days a week. I-15 will be restricted intermittently from 9 p.m. to 5:30 a.m. Monday through Thursday and from 10 p.m. Friday to 7:30 a.m. Saturday. Motorists should anticipate minor delays.
- Main Street bridge in Spanish Fork: Construction of the temporary bridge along I-15 over Main Street in Spanish Fork continues. Flaggers may be present to direct traffic during this work. Motorists can expect narrowed lanes, lane shifts and barrels or barriers to control traffic in the area.
- 300 West bridge work: Construction of the temporary bridge along I-15 over 300 West in Spanish Fork continues. Flaggers may be present to control traffic during this work. Motorists can expect narrowed lanes, lane shifts and barrels or barriers to control traffic in the area.

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